

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Francis Maguire on 11/23/10 and 12/7/10.

a. Claim 1 should read "A method for use in an equalization of a channel by means of an equalizer, wherein said channel uses a certain frequency band for a transfer of signals, said method comprising:

determining, by a signal processing apparatus, a channel response for at least three frequency points within said frequency band used by said channel;
and

setting, by said signal processing apparatus, adjustable coefficients of said equalizer such that an equalizer response compensates the determined channel response at said at least three frequency points;

wherein determining said channel response comprises determining a channel phase response and a channel amplitude response for said channel;

wherein said adjustable coefficients of said equalizer are set such that an equalizer amplitude response approaches an inverse of a determined channel

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amplitude response for all considered frequency points and that an equalizer phase response approaches a negative of a determined channel phase response for all considered frequency points; and

wherein said setting of adjustable coefficients comprises for an equalization of phase of said channel setting a complex coefficient as a phase rotator part of said equalizer, setting at least one coefficient of a non-real complex allpass filter part of said equalizer, and setting at least one coefficient of a real allpass filter part of said equalizer.”

b. Claim 3 should read “The method according to claim 1, further comprising selecting, by said signal processing apparatus, a number of said at least three frequency points for said channel to correspond to a minimum number which can be expected to result in a sufficient channel equalization.”

c. Claim 43 should read “A non-transitory computer readable medium ~~software program product~~ in which a software code is stored as an equalizer for use in an equalization of a channel, wherein said channel uses a certain frequency band for a transfer of signals, said software code for execution when running in a signal processing device comprising said equalizer configured to cause an apparatus to:

determine a channel response for at least three frequency points within said frequency band used by said channel; and

set at least one adjustable coefficient of said equalizer such that an equalizer response compensates the determined channel response at said at least three frequency points;

wherein to determine said channel response comprises to determine a channel phase response and a channel amplitude response for said channel;

wherein said adjustable coefficients of said equalizer are set such that an equalizer amplitude response approaches an inverse of a determined channel amplitude response for all considered frequency points and that an equalizer phase response approaches a negative of a determined channel phase response for all considered frequency points; and

wherein to set said at least one adjustable coefficient comprises for an equalization of phase of said channel to set a complex coefficient as a phase rotator part of said equalizer, to set at least one coefficient of a non-real complex allpass filter part of said equalizer, and to set at least one coefficient of a real allpass filter part of said equalizer.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEON-VIET Q. NGUYEN whose telephone number is (571)270-1185. The examiner can normally be reached on Monday-Friday, alternate Friday off, 7:30AM-5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Leon-Viet Q Nguyen/
Examiner, Art Unit 2611

/David C. Payne/
Supervisory Patent Examiner, Art Unit 2611